regulating a flow rate of [cooling water] coolant supplied to the core, the method comprising the steps of:

raising a [water] coolant surface formed between the [cooling water] coolant and a vapor in the at least one water rod by increasing the flow rate of the [cooling water] coolant from a beginning of one fuel cycle to an end of the one fuel cycle; and

[subsequently] further increasing the flow rate of [cooling water] coolant supplied to the core during an end portion of the one fuel cycle in a state in which the at least one water rod is completely filled with the [cooling water at an end of the one fuel cycle] coolant.

25. (amended) A method according to claim 24, wherein the step of raising the [water] coolant surface includes increasing the flow rate of the [cooling water] coolant in the range of 0% to less than 110% of the flow rate, and [the subsequent step of increasing the flow rate of the cooling water includes increasing the flow rate above 110% of the flow rate] wherein the at least one water rod is completely filled with the coolant in the flow rate of the coolant above 110% of the flow rate.

Claim 26, line 12, delete "descending" insert --ascending--.

Claim 28, line 12, delete "descending" insert --ascending--.

44. (amended) A method according to claim 38, further comprising the step of regulating a flow rate of coolant supplied to the core [including the steps of:

raising a coolant surface formed between the coolant and a vapor in the at least one water rod by increasing the flow rate of the coolant during at least one period from a beginning of one fuel cycle to an end of the one fuel cycle; and

further increasing the flow rate of the coolant supplied to the core during the at least one period in a state in which the at least one water rod is completely filled with the coolant and no vapor is present in the at least one water rod at least at the end of the one fuel cycle].

Claim 45, line 1, delete "44" insert --51--.

Please add the following new claims:

--50. A method according to claim 24, wherein the coolant is cooling water.

51. A method according to claim 44, wherein the step of regulating a flow rate of coolant supplied to the core includes the steps of:

raising a coolant surface formed between the coolant and a vapor in the at least one water rod by increasing the flow rate of the coolant during at least one period from a

beginning of one fuel cycle to an end of the one fuel cycle; and

further increasing the flow rate of the coolant supplied to the core during the at least one period in a state in which the at least one water rod is completely filled with the coolant and no vapor is present in the at least one water rod at least at the end of the one fuel cycle.

52. A method for operating a nuclear reactor having a reactor vessel and at least one fuel assembly loaded in a core arranged inside the reactor vessel, the at least one fuel assembly having an upper tie plate, a lower tie plate, a plurality of fuel rods having upper ends held by the upper tie plate and lower ends held by a fuel rod holding portion of the lower tie plate, at least one water rod arranged among the fuel rods, and a resistance member at a lower end portion of the at least one fuel assembly, the plurality of fuel rods having a plurality of fuel pellets therein, and the at least one water rod having a coolant ascending path including a coolant inlet port which is open in a region lower than the resistance member, and a coolant descending path which is communicated with the coolant ascending path, the coolant descending path having a coolant delivery port open in a region higher than the resistance member, the coolant being guided downwardly in the coolant descending path in an opposite direction of the coolant flow in the coolant ascending path, the method comprising the step of regulating a

flow rate of the coolant supplied to the core including the steps of:

raising a coolant surface formed between the coolant and a vapor in the at least one water rod by increasing the flow rate of the coolant during at least one period from a beginning of one fuel cycle to an end of the one fuel cycle; and

further increasing the flow rate of the coolant supplied to the core during the at least one period in a state in which the at least one water rod is completely filled with the coolant and no vapor is present in the at least one water rod at least at the end of the one fuel cycle.

53. A method according to claim 52, wherein the step of raising the coolant surface includes increasing the flow rate of the coolant in the range of 0% to less than 110% of the flow rate and the step of further increasing the flow rate of the coolant includes increasing the flow rate above 110% of the flow rate.

54. A method for operating a nuclear reactor having a reactor vessel and at least one fuel assembly loaded in a core arranged inside the reactor vessel, the at least one fuel assembly having an upper tie plate, a lower tie plate, a plurality of fuel rods having upper ends held by the upper tie plate and lower ends held by a fuel rod holding portion of the lower tie plate, a plurality of water rods arranged among the

fuel rods, and a resistance member at a lower end portion of the at least one fuel assembly, the plurality of fuel rods having a plurality of fuel pellets therein, and each of the water rods having a coolant ascending path including a coolant inlet port which is open in a region lower than the resistance member, and a coolant descending path which is communicated with the coolant ascending path, the coolant descending path having a coolant delivery port open in a region higher than the resistance member, the coolant being guided downwardly in the coolant descending path in an opposite direction of the coolant flow in the coolant ascending path, the method comprising the steps of:

loading a plurality of the fuel assembly in the reactor core; and

controlling the amounts of voids accumulated in the water rods.

55. A method according to claim 54, wherein the resistance member is provided as the fuel rod holding portion of the lower tie plate.

56. A method according to 54, wherein the step of controlling the amount of voids includes the step of regulating a flow rate of coolant supplied to the core including the steps of:

raising a coolant surface formed between the coolant and a vapor in the at least one water rod by increasing the flow

rate of the coolant during at least one period from a beginning of one fuel cycle to an end of the one fuel cycle; and

further increasing the flow rate of the coolant supplied to the core during the at least one period in a state in which the at least one water rod is completely filled with the coolant and no vapor is present in the at least one water rod at least at the end of the one fuel cycle.

57. A method according to claim 56, wherein the step of raising the coolant surface includes increasing the flow rate of the coolant in the range of 0% to less than 110% of the flow rate and the step of further increasing the flow rate of the coolant includes increasing the flow rate above 110% of the flow rate.--

REMARKS

By the above amendment, claims 4-7, 23 and 30-37 have been cancelled without prejudice to the right to file a divisional application directed thereto, in light of the restriction requirement as set forth in the present Office Action. Additionally, claims have been amended to correct informalities therein as well as to clarify features thereof, and new claims 50-57 have been added.

The requirement for restriction to one of the inventions identified as invention I - claims 4-7, 23 and 30-37; invention II - claims 24-29 and 44-49; and invention III - claims 38-43 is traversed as being improper and insofar as it